Supplementary material

Progesterone increases blood glucose via hepatic progesterone receptor membrane component 1 under limited or impaired action of insulin

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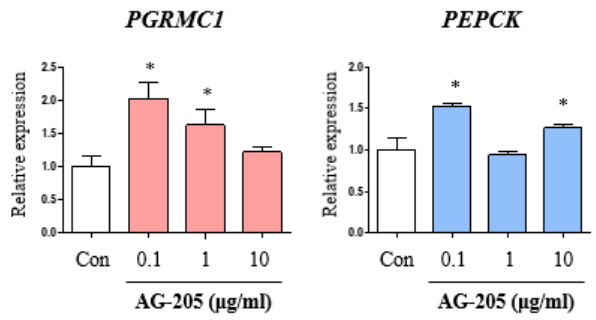


Fig S1. mRNA expression of *PGRMC1* and *PEPCK* in Hep3B cells AG-205 (0.1, 1, 10 μg/ml) was treated in low glucose medium (50mg/dl) for 18 h in Hep3B cells. *RPLP0* was used as an internal control. Values represent means ± SD. *, $p<0.05$ vs. Control. All experiments were repeated at least 3 times.

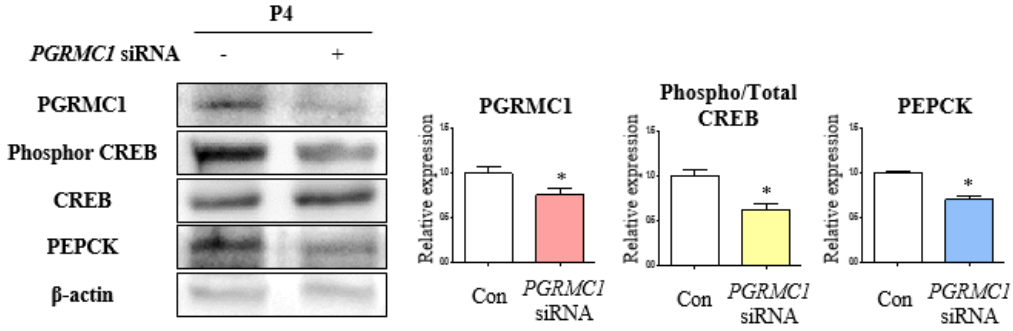


Fig S2. Western blot analysis and quantification of PGRMC1, phosphor/total CREB, and PEPCK in control and *PGRMC1* siRNA groups. Cells were starved in low glucose medium (50 mg/dl). P4 (10 nM) was treated for 18 h after siRNA transfection. β-actin was used as an internal control. Values represent means ± SD. *, $p<0.05$ vs. Control. All experiments were repeated at least 3 times.

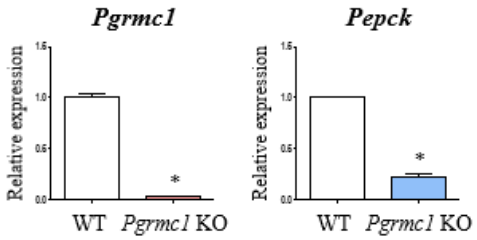


Fig S3. mRNA expression of *Pgrmc1* and *Pepck* in WT and *Pgrmc1* KO hepatocyte. Cells were incubated in low glucose medium (50mg/dl) for 18 h in Hep3B cells. *Rplp0* was used as an internal control. Values represent means ± SD. *, $p<0.05$ vs. WT hepatocyte. All experiments were repeated at least 3 times.

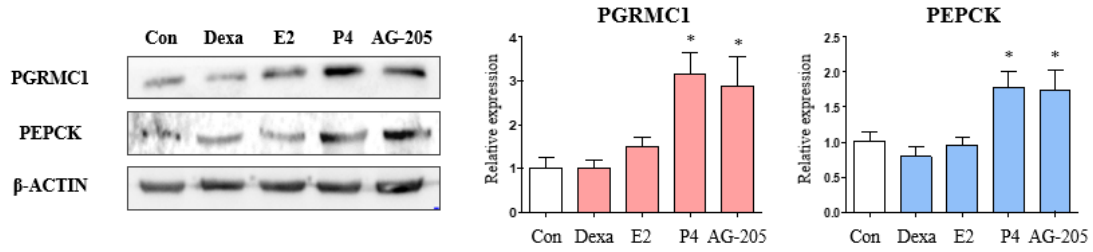


Fig S4. Western blot analysis and quantification of PGRMC1 and PEPCK in Control vs. Dexamethasone, E2, P4, AG-205 groups. Cells were starved in DMEM medium (w/o glucose, w/o FBS). Dexamethasone (100 nM), E2 (100 nM), P4 (100 nM) and AG-205 (10 μg/ml) were treated in DMEM medium (w/o glucose, 2%CD-FBS, 1% Penicillin/Streptomycin, 1nM dexamethasone) for 24 h. β-actin was used as an internal control. Values represent means ± SD. *, $p<0.05$ vs. Control. All experiments were repeated at least 3 times.

Fig.1A

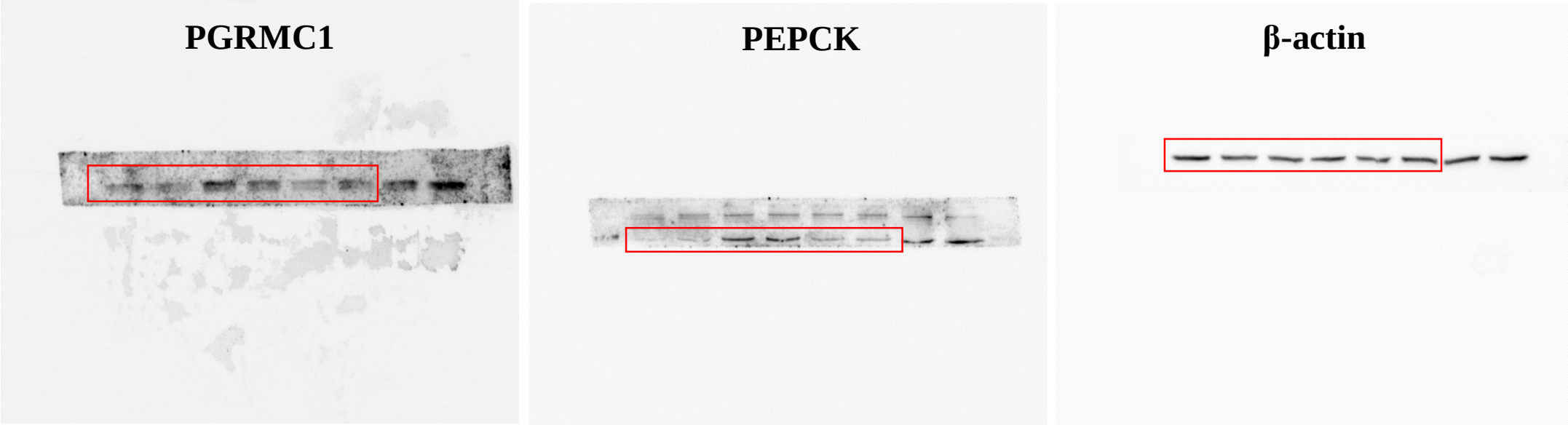


Fig.1B

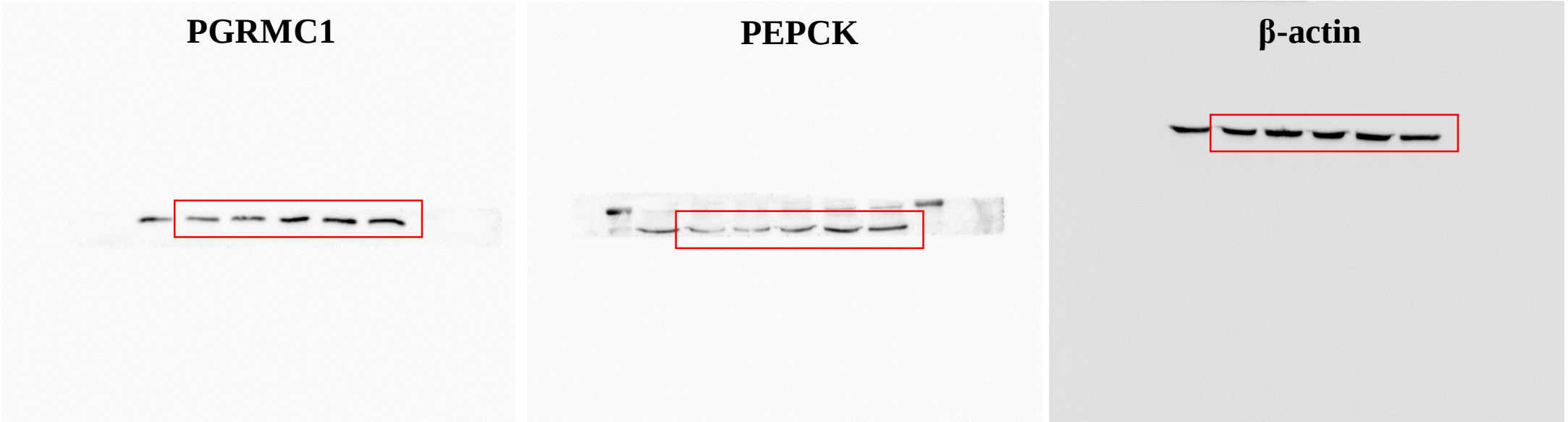


Fig.1D

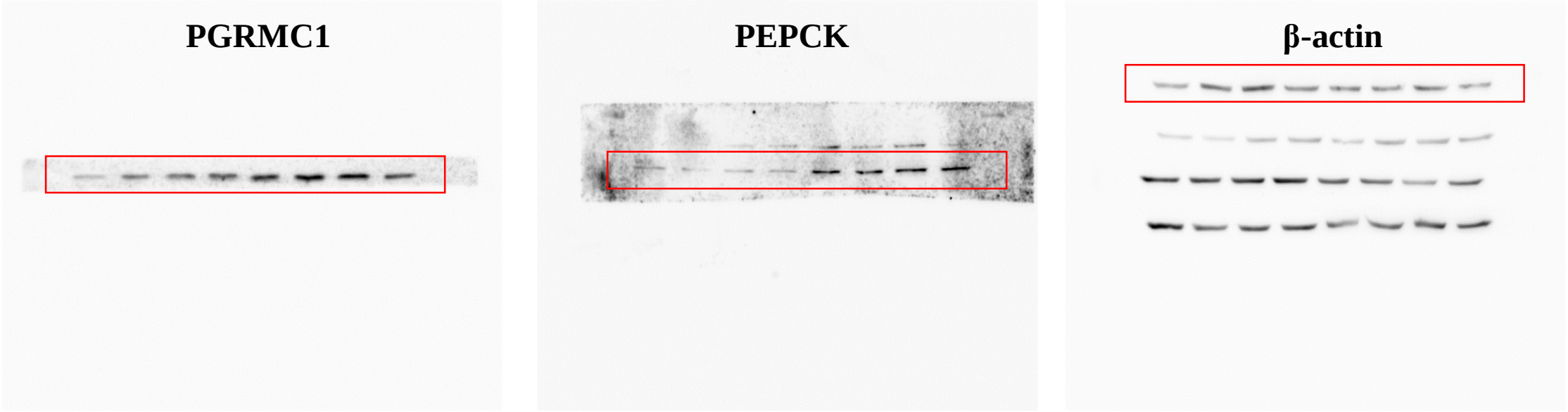


Fig.2A

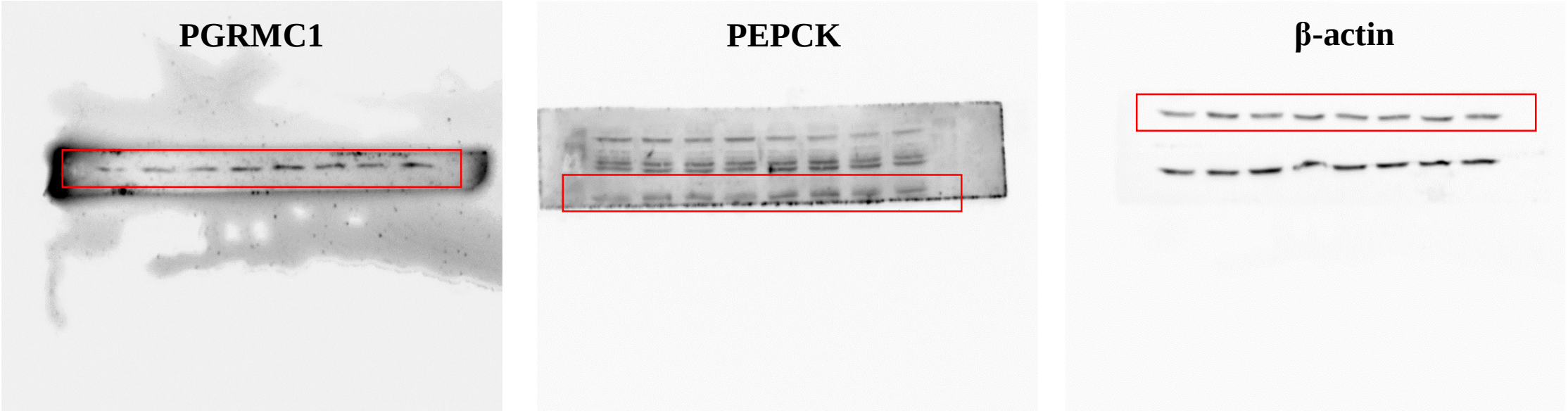


Fig.3A

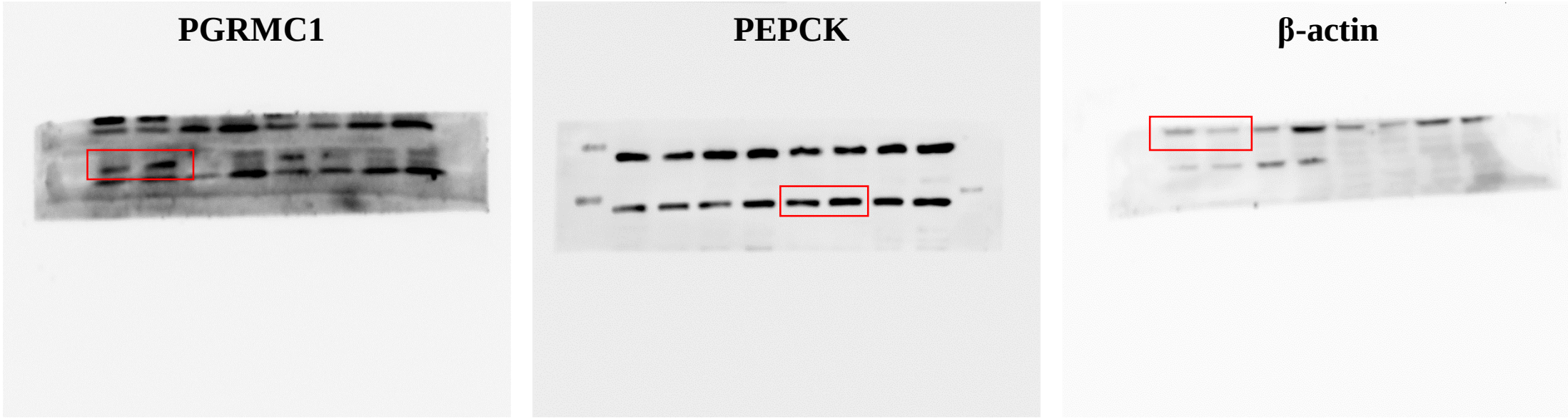


Fig.3B

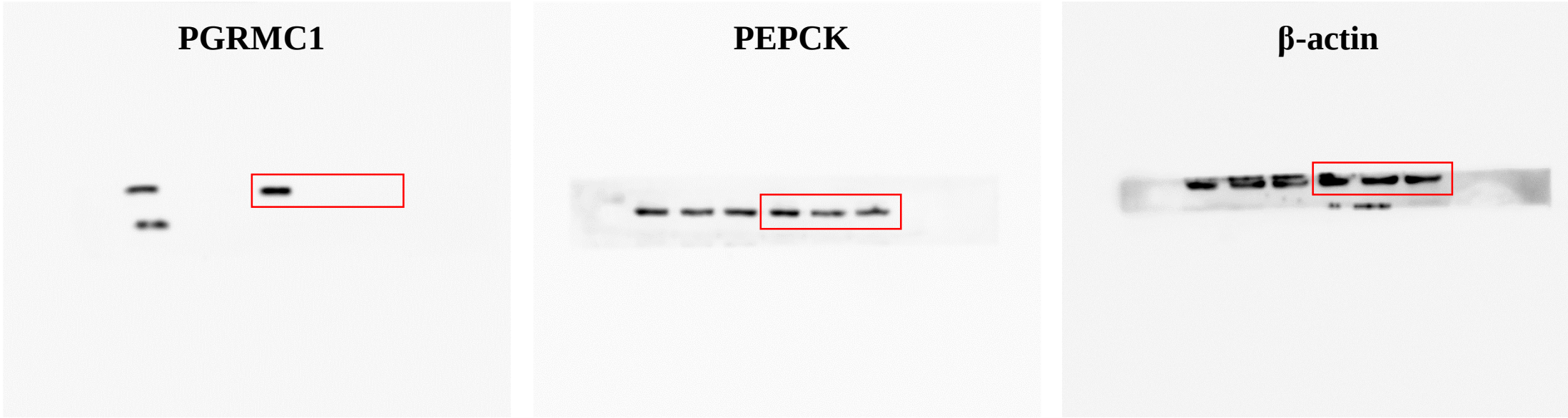


Fig.3C

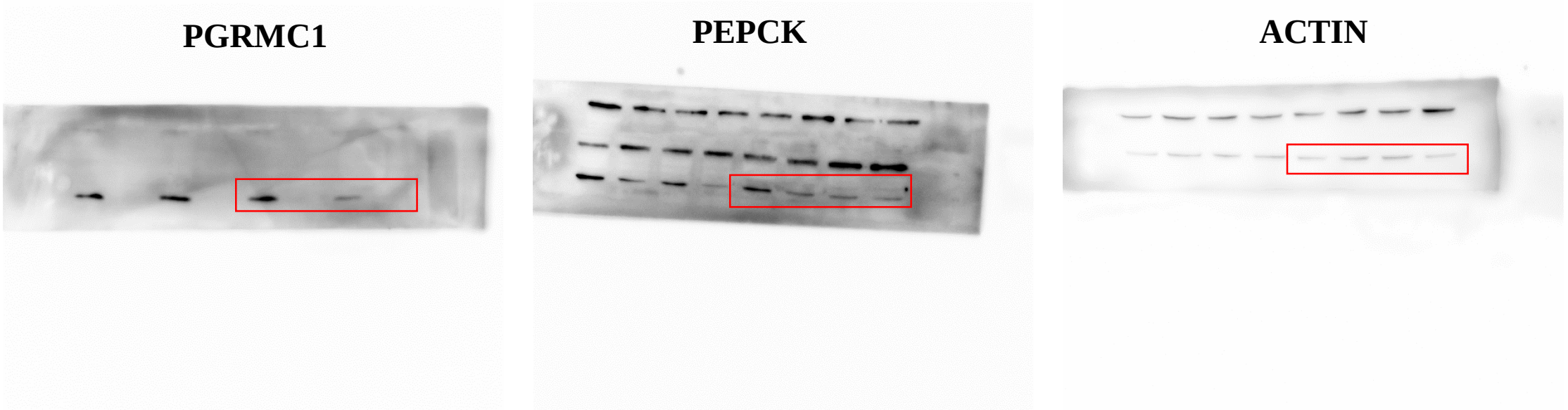
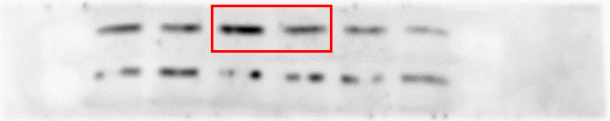
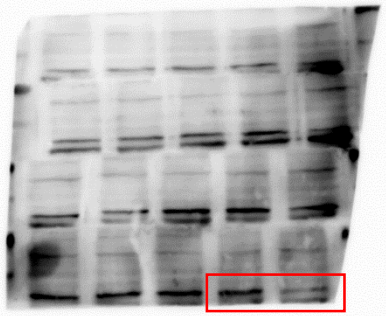


Fig.4A

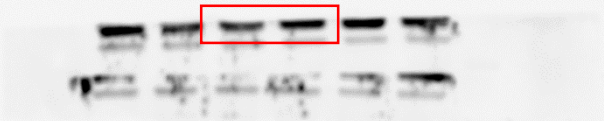
PGRMC1



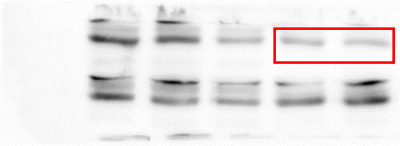
PEPCK



β-actin

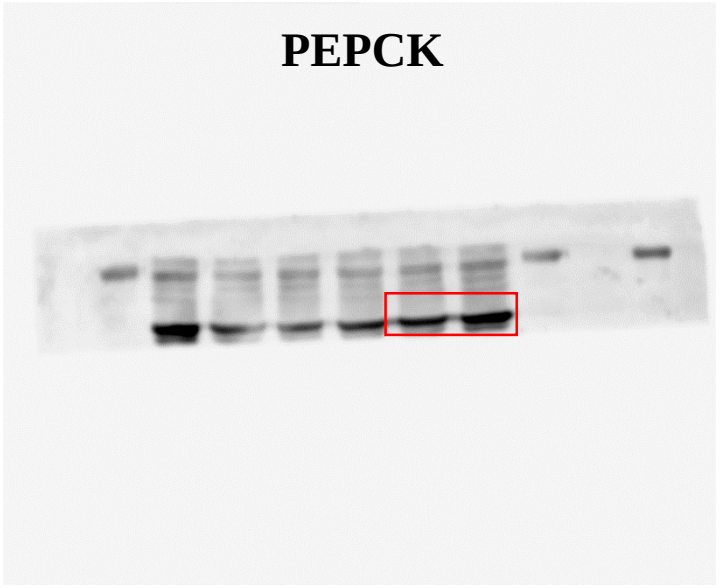


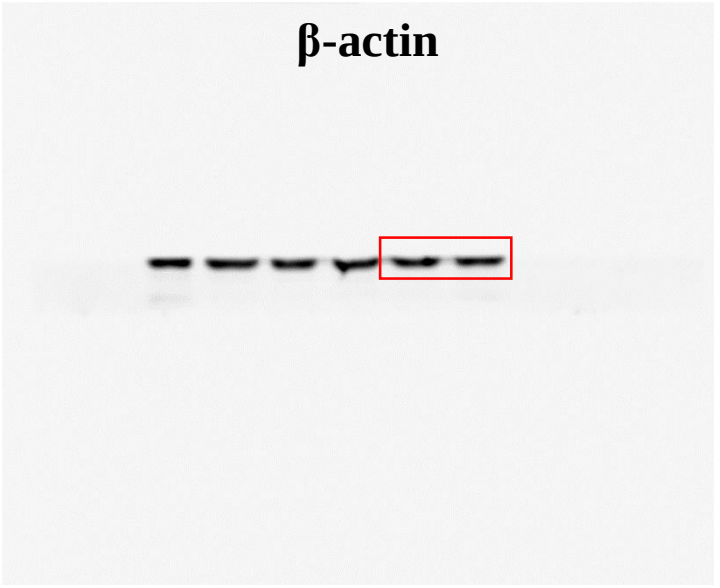
CREB

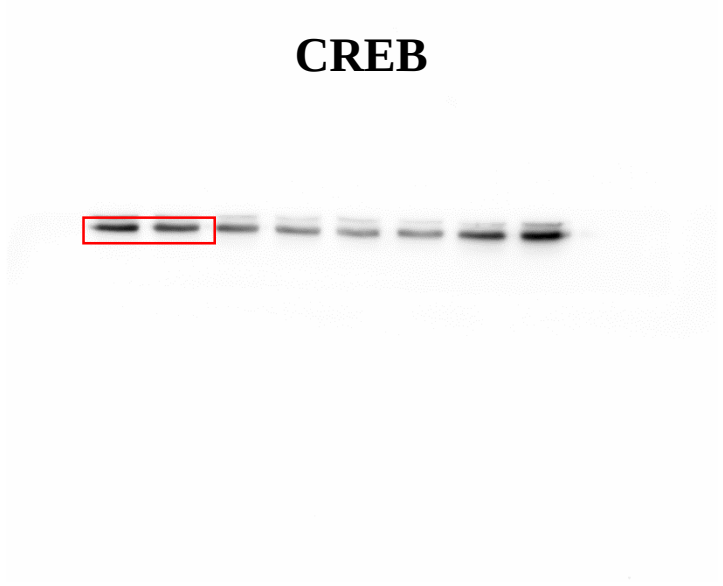


Phosphor CREB

Fig.4B







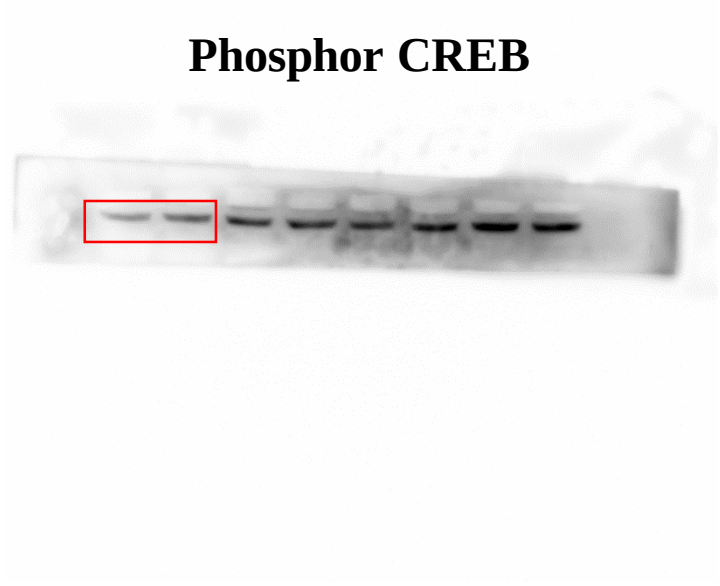


Fig.4C

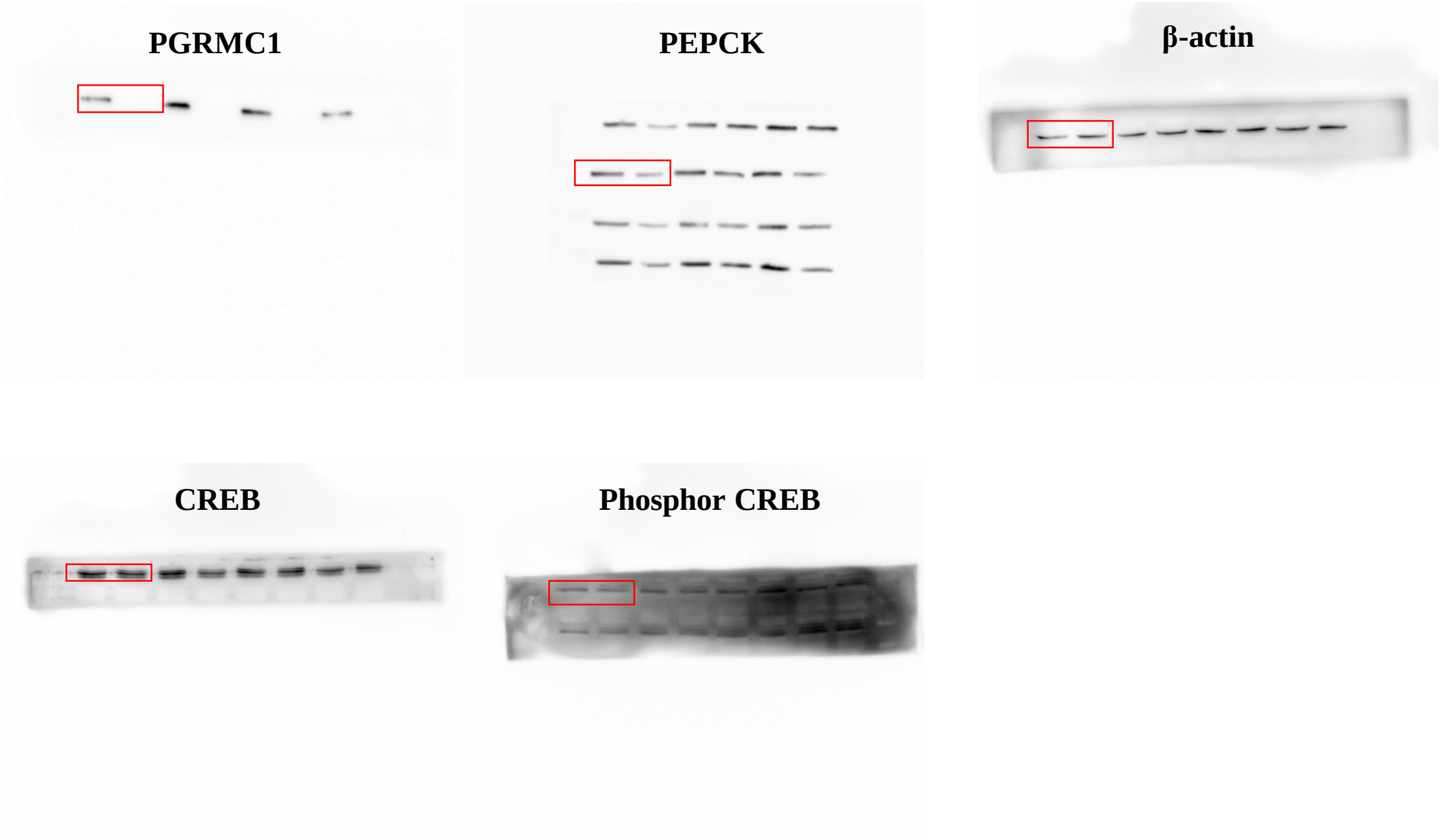


Fig.5A

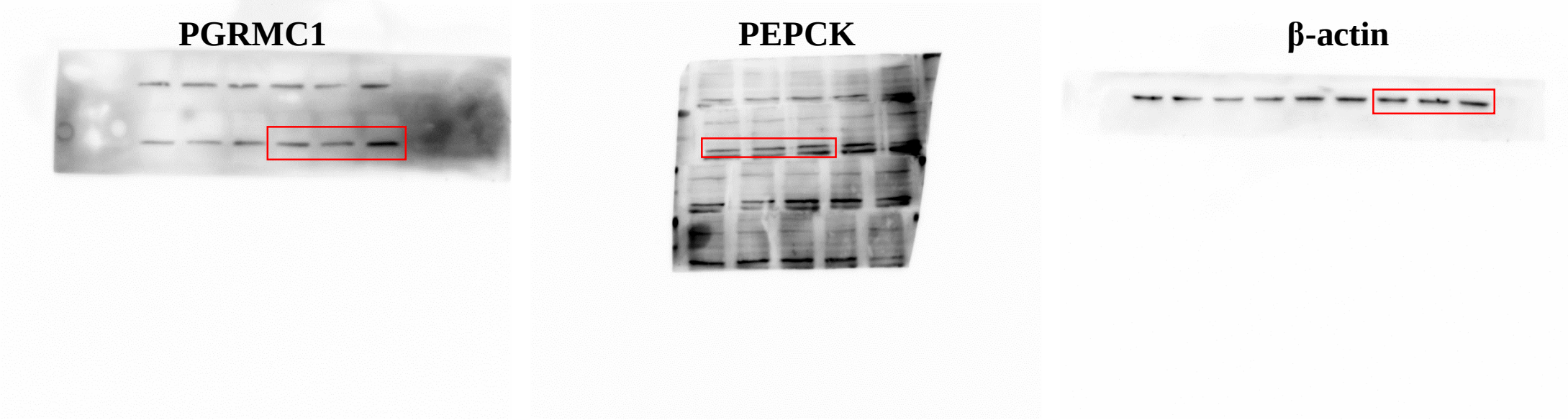


Fig.5C

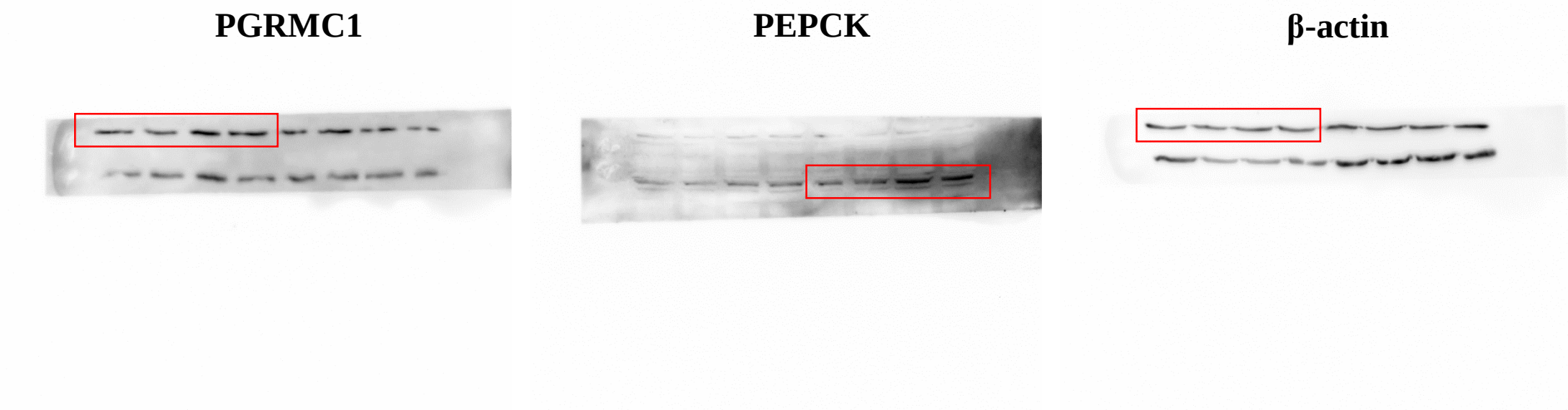
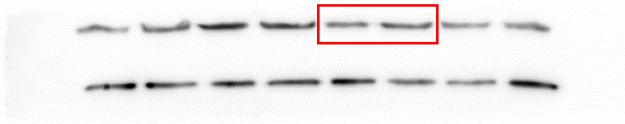


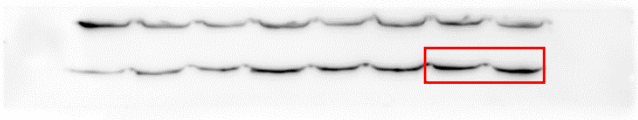
Fig.6A

PGRMC1

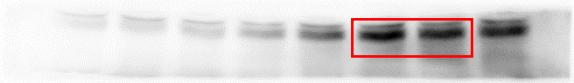


PEPCK

β-actin



CREB



Phosphor CREB

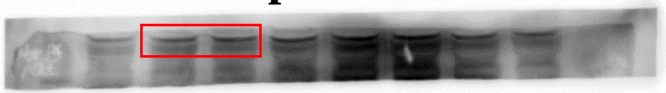
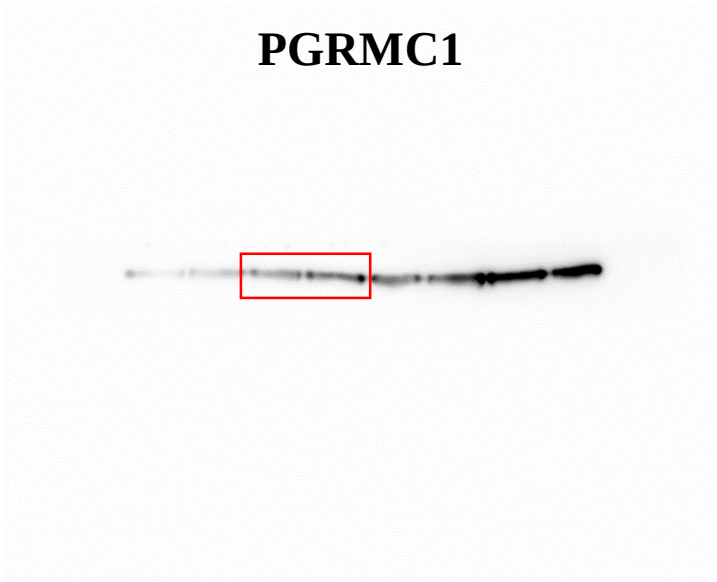


Fig.6B

PGRMC1



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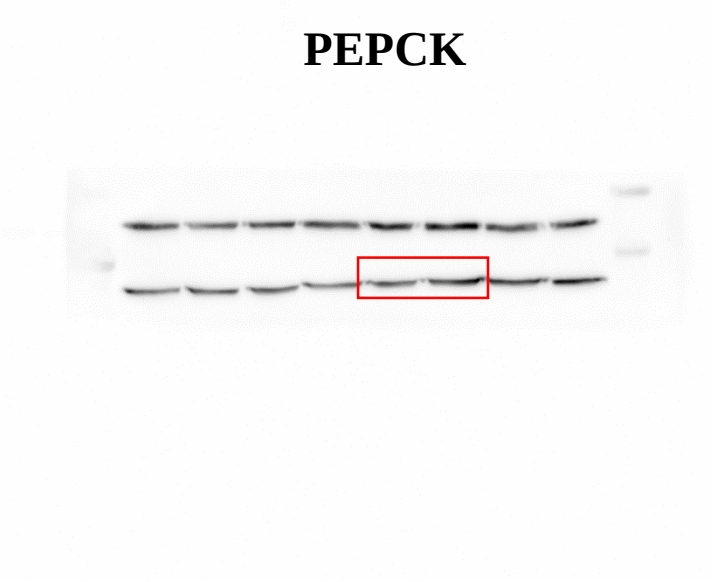
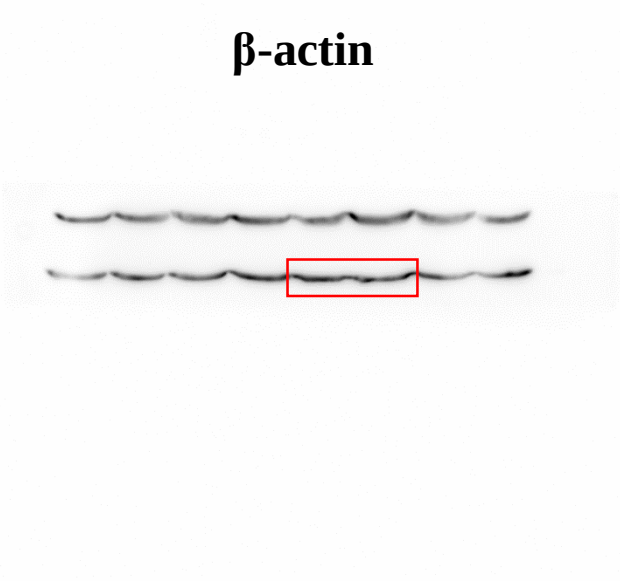
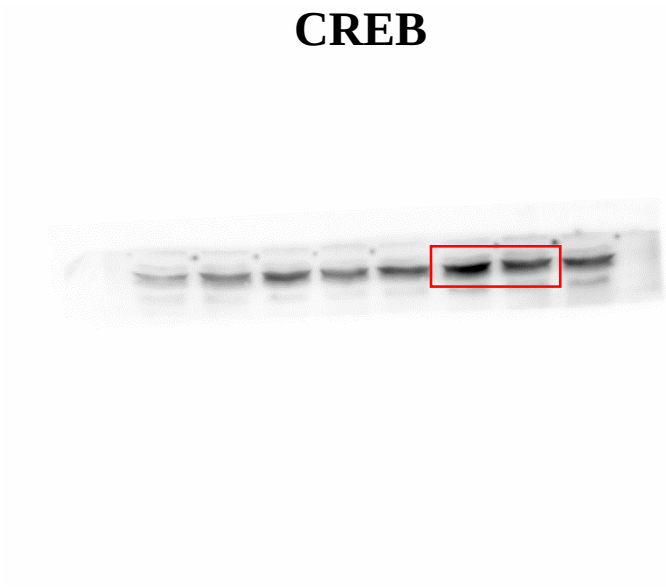


β-actin



CREB



Phosphor CREB

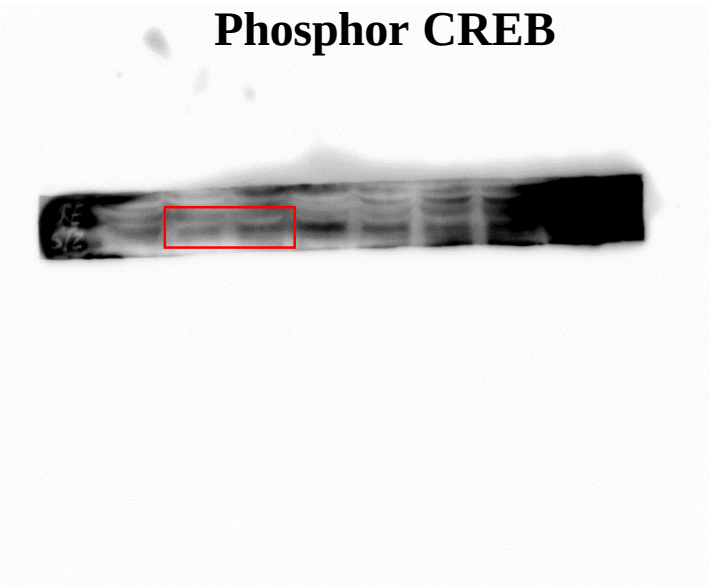
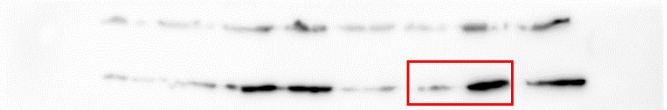


Fig.6C

PGRMC1



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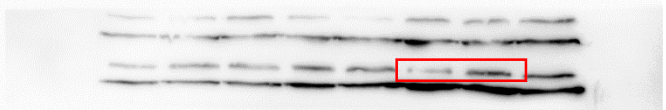
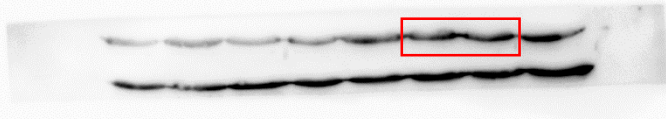


β-actin



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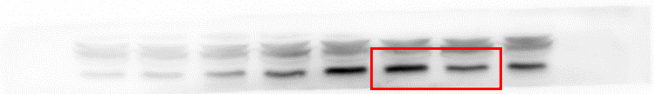
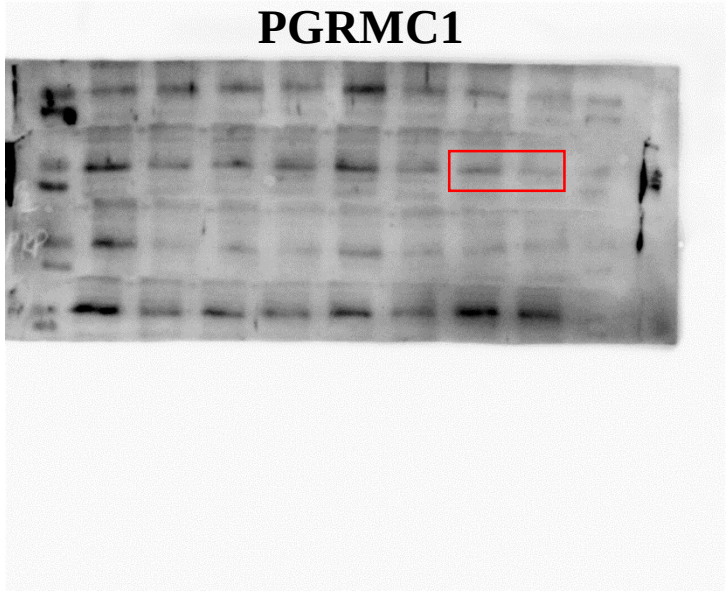
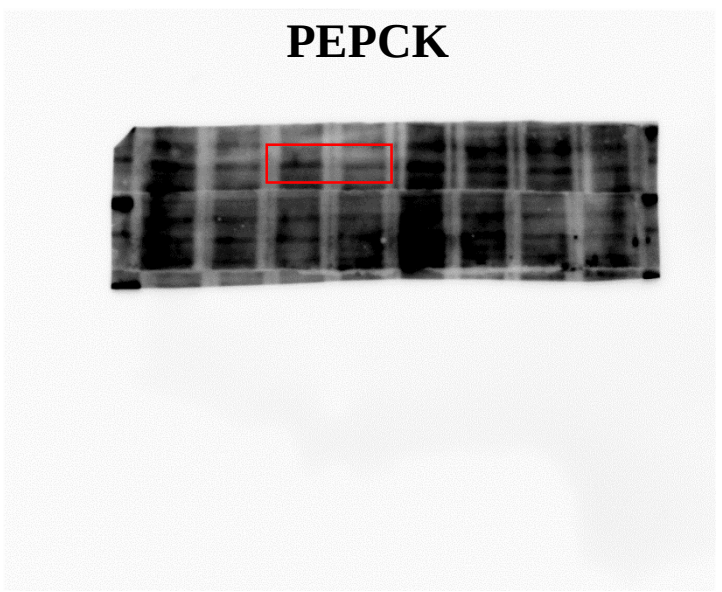
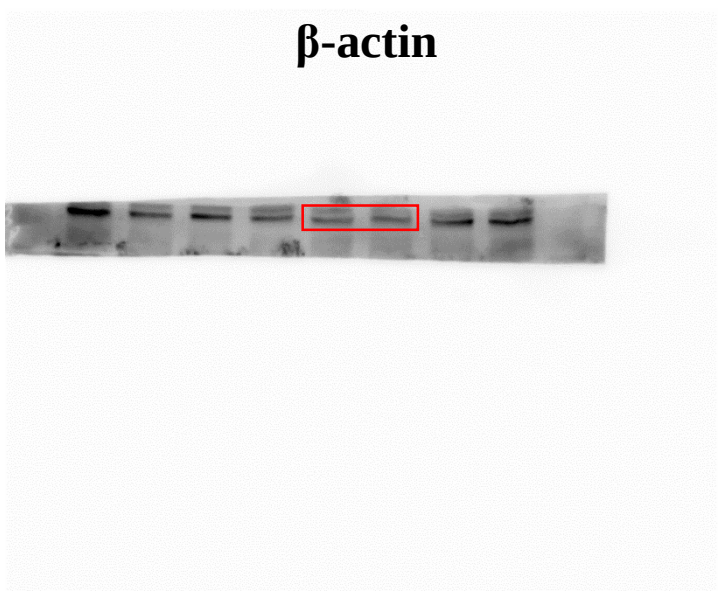


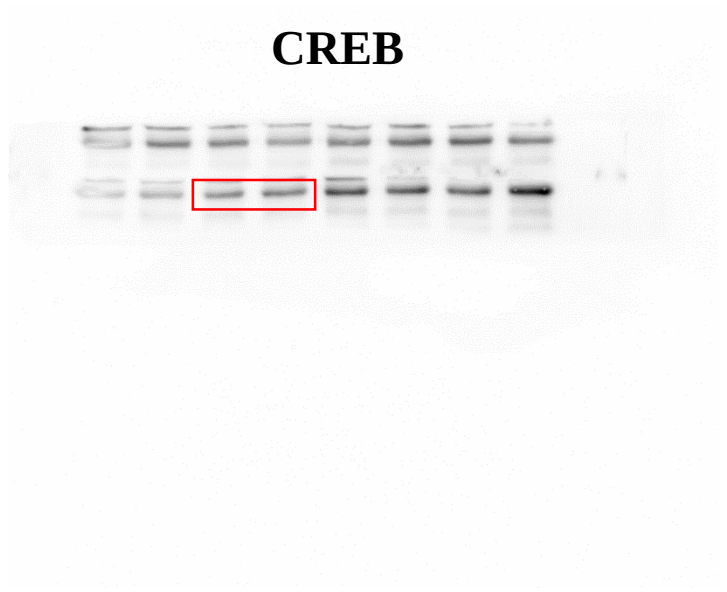
Phosphor CREB

Fig.S2









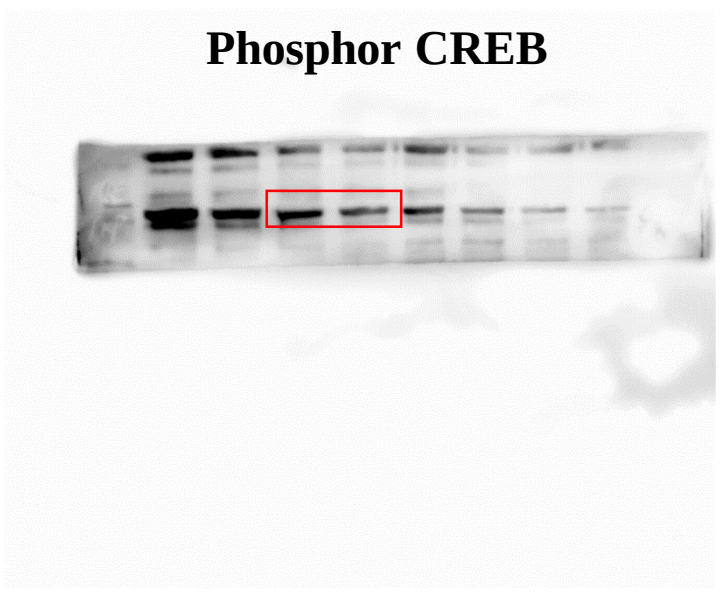


Fig.S4